

REMARKS**Summary of the Office Action**

Claims 1-6, 8-13 and 15-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yoo et al. (US, 6,642,972).

Claims 7 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo et al. in view of Kim et al. (US, 6,100,954).

Summary of the Response to the Office Action

Applicants amend independent claims 1, 4, 11, and 16, and amended dependent claims 2, 3, 10, and 17 to further clarify the invention. Furthermore, Applicants add new claims 18-26 to further define the invention. Accordingly, claims 1-26 are presently pending for consideration.

All Claims Define Allowable Subject Matters

Claims 1-6, 8-13 and 15-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yoo et al. (US, 6,642,972) and claims 7 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo et al. in view of Kim et al. (US, 6,100,954). Applicants respectfully traverse the rejections at least for the following reasons.

Independent claims 1, 4, 11 and 16, as amended, recite a data pad region including, in part, “a first contact area having a plurality of first contact regions exposing first side portions of the data line and first portions of the insulating layer,” “a second contact area having a plurality of second contact regions exposing second side portions of the data line and second portions of the insulating layer,” and “a central contact area disposed between the first and second contact areas and exposing a third portion of the insulating layer.” Applicants respectfully submit that at least this combination of features, as recited by amended independent claims 1, 4, 11, and 16, are neither taught nor suggested by Yoo et al. and Kim et al., whether taken singly or combined.

The Office Action, at page 3, alleges that Yoo et al. discloses “at least one first side contact 150 (FIG. 8C) with a first area formed in each data pad, the data line 115 being side-contacted with a conductive material 143 (FIG. 8D) in the first side contact 150, and at least one second side contact 139 (FIGs. 8C and 8D) with a second area formed in each data pad, the data line 115 being side-contacted with the conductive material 143 in the second side contact 139.” Furthermore, the Office Action alleges that Yoo et al. teaches “forming at least one first side contact hole 150 (FIG. 8C) with a first area at the central region of the data pad forming region and forming at least two second side contact holes 139 and 149 (FIG. 8C) with a second area respectively at both edges of the data pad forming region.” Applicants respectfully disagree.

In contrast to the Applicants’ claimed invention, Yoo et al. teaches (col. 11, lines 26-54 and FIGs. 8C and 8D) forming an insulating segment between a first data shorting bar 129 and the second connector 143 on an array substrate 122 to prevent any short-circuit connection in order to increase LCD device production yield. However, Applicants respectfully assert that Yoo et al. is completely silent with regard to a plurality of data pads *each* including “a first contact area having a plurality of first contact regions exposing first side portions of the data line and first portions of the insulating layer,” “a second contact area having a plurality of second contact regions exposing second side portions of the data line and second portions of the insulating layer,” and “a central contact area disposed between the first and second contact areas and exposing a third portion of the insulating layer,” as required by amended independent claims 1, 4, 11, and 16. More specifically, Applicants respectfully assert that the data pad structures of Yoo et al. fail to include first, second, and central contact areas as recited by amended independent claims 1, 4, 11, and 16. Accordingly, Applicants respectfully assert that Yoo et al. fails to anticipate Applicants’ presently-claimed invention.

With regard to Kim et al., Applicants respectfully assert that Kim et al. fails to remedy the deficiencies of Yoo et al., as detailed above. Specifically, since Kim et al. is completely silent with regard to data pad structures, then Kim et al. fails to remedy the deficiencies of Yoo et al. Accordingly, Applicants respectfully assert that combining the teachings of Yoo et al. and Kim et al. fails to establish a *prima facie* case of obviousness with regard to any of claims 1-17.

For at least the above reasons, Applicants respectfully submit that claims 1-17 are neither taught nor suggested by any of the applied prior art references, whether taken alone or in combination. Applicants respectfully assert that the rejections under 35 U.S.C. §§ 102(e) and 103(a) should be withdrawn because the above-discussed novel combinations of features are neither taught nor suggested by any of the applied references, whether taken alone or in combination.

New Claims 18-26

Applicants have added new claims 18-26 to further define the invention. Applicants respectfully submit that new claims 18-26 are allowable for their dependency upon independent claims 1, 4, 11, and 16, as well as the combination of features that each of new claims 18-26 recite.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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